

NOTICE OF NSA OPPORTUNITY TO COMMENT



www.multco.us/landuse ▪ Email: land.use.planning@multco.us ▪ Phone: (503) 988-3043

Application for National Scenic Area Site Review

CASE FILE: T2-2025-0062 **APPLICANT:** Alec Sommer

LOCATION: 32040 NE Mershon Rd., Troutdale **Property ID #** R111656
Map, Tax lot: 1N4E32A -03600 **Alt. Acct. #** R053504370

BASE ZONE: Gorge General Residential (GGR-10)

OVERLAYS: Geologic Hazards (GH)

KEY VIEWING AREAS: Historic Columbia River Highway, Larch Mountain Road, Portland Women's Forum

LANDSCAPE SETTING: Rural Residential in Pastoral

PROPOSAL: National Scenic Area Site Review to a photovoltaic system on the roof of the existing single-family dwelling.

- ❖ **COMMENT PERIOD:** Neighbors are invited to submit written comments for the proposal described above. Comments should be directed toward the approval criteria listed below. Any neighbor that submits comments will receive the County's complete decision. Written comments will be accepted at LUP-comments@multco.us if received by **4:00 pm on Wednesday, November 26, 2025**. Comments regarding Cultural Resources will be accepted until **4:00 pm on Wednesday, December 3, 2025**.

If you do not wish to submit comments, no response is necessary.

Further information regarding this application is available by contacting LUP-comments@multco.us. Paper copies of these materials may be purchased for \$0.71/per page.

- ❖ **APPLICABLE APPROVAL CRITERIA** [Multnomah County Code (MCC)]:

General Provisions: MCC 38.0560 Code Compliance and Applications, MCC 38.0015 Definitions – Parcel, MCC 38.0110 Tribal Treaty Rights and Consultation

GGR Zone: MCC 38.3025 Review Uses, (17) Solar, photovoltaic and wind turbine alternative energy production facilities accessory to uses permitted in the zoning district..., MCC 38.3060 Dimensional Requirements

NSA Site Review Criteria: MCC 38.7015 Application for NSA Site Review, MCC 38.7035 GMA Scenic Review Criteria, MCC 38.7045 GMA Cultural Resource Review Criteria, , MCC 38.7053 GMA Water Resources Review Criteria, MCC 38.7065 GMA Wildlife Review Criteria, MCC 38.7070 GMA Rare Plant Review Criteria, MCC 38.7080 GMA Recreation Resource Review Criteria

Copies of the referenced Multnomah County Code sections can be obtained by visiting our website at <https://multco.us/landuse/zoning-codes/> under the link **Chapter 38 – Columbia River Gorge National Scenic Area** or by contacting our office at (503) 988-3043.



- ❖ **DECISION MAKING PROCESS:** The Planning Director will render a decision on this application after the comment period expires. Notice of the Director's decision will be mailed to the applicant, those who submitted written comment during the comment period, those who requested the decision in writing, and the Gorge Commission. The Planning Director's decision can be appealed. An explanation of the requirements for filing an appeal will be included in the notice of decision.
- ❖ **IMPORTANT NOTE:** Failure to raise an issue before the close of the public record in sufficient detail to afford the County and all parties an opportunity to respond may preclude appeal on that issue to the Columbia River Gorge Commission.
- ❖ **ENCLOSURES:**
Plan Set

Notice to Mortgagee, Lien Holder, Vendor, or Seller:

ORS chapter 215 requires that if you receive this notice, it must promptly be forwarded to the purchaser.

PHOTOVOLTAIC ROOF MOUNT SYSTEM

48 MODULES-ROOF MOUNTED - 21.12 kWDC, 16.75 kWAC
32040 NE Mershon Rd, Troutdale, OR 97060 USA



ELEMENTAL
ENERGY

6800 NE 59TH PLACE,
PORTLAND, OR 97218
Phone - (541) 316-5786
Contractor# OR CCB#: 195141

PROJECT INFORMATION:

OWNER: AARON MCKAY
ADDRESS: 32040 NE Mershon Rd, Troutdale, OR 97060
COUNTY: MULTNOMAH COUNTY
APN: R111656
COORDINATES: 45.52644, -122.33642
CUST. PHONE: N/A
BUILDING DATA: SINGLE FAMILY RESIDENTIAL
APPLICABLE CODES: 2023 OESC & 2022 OSSC
FINANCING: N/A
CLIMATE DATA SOURCE: PORTLAND INTERNATIONAL AP

SYSTEM SUMMARY:

SYSTEM SIZE : 21.12 kWDC
SYSTEM SIZE : 16.75 kWAC
(N) 48 - SILFAB SOLAR SIL-440 QD (440W) MODULES
(N) 48 - ENPHASE ENERGY IQ8AC-72-M-US MICRO-INVERTERS
(E) (2) 200A MAIN SERVICE PANEL WITH (E) (2) 200A MAIN BREAKER, PGE
(N) 100A UTILITY REQUIRED NON FUSED PV AC DISCONNECT/RSID,(1 OF 3)
LOAD-BREAK, KNIFE-BLADE, WITHIN 10' FROM UTILITY METER ACCESSIBLE 24/7
(N) 01- FRANKLIN aPOWER 2 BATTERY (APR-10K15V2-US), 15KWH
(N) AGATE 1.3 (AGT-R1V2-US)
(N) 60A NON FUSED BATTERY AC DISCONNECT (2 OF 3),WITHIN 10' FROM UTILITY METER
(N) (2) ENPHASE AC COMBINER PANEL
(N) 30A UTILITY REQUIRED NON FUSED PV AC DISCONNECT/RSID,(3 OF 3)
LOAD-BREAK, KNIFE-BLADE, WITHIN 10' FROM UTILITY METER ACCESSIBLE 24/7
(N) aPBOX

GOVERNING CODES:

2022 OREGON FIRE CODE (OFC)
2022 OREGON STRUCTURAL SPECIALTY CODE (OSSC)
2023 NATIONAL ELECTRICAL CODE (NEC)

GENERAL NOTES:

- PV SYSTEMS AND SUPPORTING STRUCTURE SHALL COMPLY WITH REQUIREMENTS OF 2023 OESC & 2022 OSSC.
- 3111.3.1 - PV RACKING AND ATTACHMENTS SHALL BE CERTIFIED WITH UL 1703 OR WITH BOTH UL 61730-1 AND UL 61730-2.
- 3111.3.2 - PV SYSTEM SHALL HAVE A FIRE CLASSIFICATION THAT IS EQUAL TO OR GREATER THAN THE ROOF ASSEMBLY REQUIRED BY OSSC SECTION 1505.1.
- 3111.3.4.3 - 3111.3.4.7- PV LAYOUT SHALL NOT RESTRICT EGRESS, LIGHT VENTILATION, OR ROOF DRAINAGE REQUIREMENTS.
- 3111.3.4.8.1 - GENERAL PATHWAY REQUIREMENTS:
 - 36" WIDE PATHWAY SHALL NOT BE REQUIRED ON STRUCTURES WITH A PV ARRAY AREA OF 1,000 SF OR LESS INSTALLED ON A ROOF WITH A SLOPE THAT EXCEEDS 2:12 AND WITH AN INTERSECTING ADJACENT ROOF AND WHERE NO SECTION IS LARGER THAN 150 FEET MEASURED IN LENGTH OR WIDTH.
 - WHERE PV ARRAY DOES NOT EXCEED 25% AS MEASURED IN PLAN VIEW OF TOTAL ROOF AREA OF A STRUCTURE, A MINIMUM OF 12" UNOBSTRUCTED PATHWAY SHALL BE MAINTAINED ALONG EACH SIDE OF ANY HORIZONTAL RIDGE.
 - WHERE THE SOLAR ARRAY EXCEEDS 25% AS MEASURED IN PLAN VIEW OF TOTAL ROOF AREA OF THE STRUCTURE, A MINIMUM OF ONE 36" UNOBSTRUCTED PATHWAY SHALL BE PROVIDED IN ADDITION TO A MINIMUM 12" UNOBSTRUCTED ALONG EACH SIDE OF ANY HORIZONTAL RIDGE.
- ROOF STRUCTURE IS CONVENTIONAL LIGHT FRAMED WOOD CONSTRUCTION WITH PRE-ENGINEERED TRUSSES @ 24" O.C. REFER TO ALLOWABLE SPAN REQUIREMENTS IN TABLE 305.4.1.
- 3111.3.4.8.5.1 - DISCONNECTS, J-BOXES, COMBINER BOXES OR GUTTERS SHALL NOT BE PLACED IN ANY REQUIRED PATHWAY OR CUTOUT.
- PV MODULES AND RACKING SHALL BE DIRECTLY ATTACHED TO ROOF FRAMING AS SHOWN IN PV-2. WHEN ATTACHMENT LOCATED WITHIN 3' OF ROOF EDGE, HIP, EAVE, RIDGE SHALL BE 24" O.C. MAX.
- 3111.3.5.3.6 - MAX MODULE HEIGHT < 18" OFF ROOF SURFACE.

DESIGN CRITERIA:

WIND SPEED: 97 MPH (ASCE 7-22)
RISK CATEGORY: II
WIND EXPOSURE CATEGORY: B
ROOF SNOW LOAD: 25 PSF
ROOF TYPE: STANDING SEAM METAL
NUMBER OF LAYERS: 01
ROOF FRAME: PRE-ENGINEERED TRUSSES @ 24" O.C.
SEAM SPACING: 16" O.C.
STORY: ONE

SHEET INDEX

PV-0	COVER SHEET
PV-1	OVERALL SITE PLAN
PV-2	ROOF PLAN WITH MODULES
PV-3	BRANCH LAYOUT
PV-4	FRAMING PLAN
PV-4.1	ATTACHMENT DETAIL & CLAMPING METHOD
PV-5	ELECTRICAL LINE DIAGRAM
PV-5.1	ELECTRICAL CALCULATION
PV-6	WARNING LABELS
PV-6.1	WARNING LABELS



0

COVER SHEET

SCALE: NTS.

VICINITY MAP
SCALE: NTS



AERIAL VIEW
SCALE: NTS



REVISIONS	
DESCRIPTION	DATE

ELECTRICAL CONTRACTOR

PROJECT NAME
AARON MCKAY RESIDENCE
32040 NE Mershon Rd,
Troutdale, OR 97060 USA
APN# R111656
UTILITY #: PGE

PROJECT N/A
SHEET NAME COVER SHEET
SHEET SIZE ANSI B
SHEET NUMBER PV-0

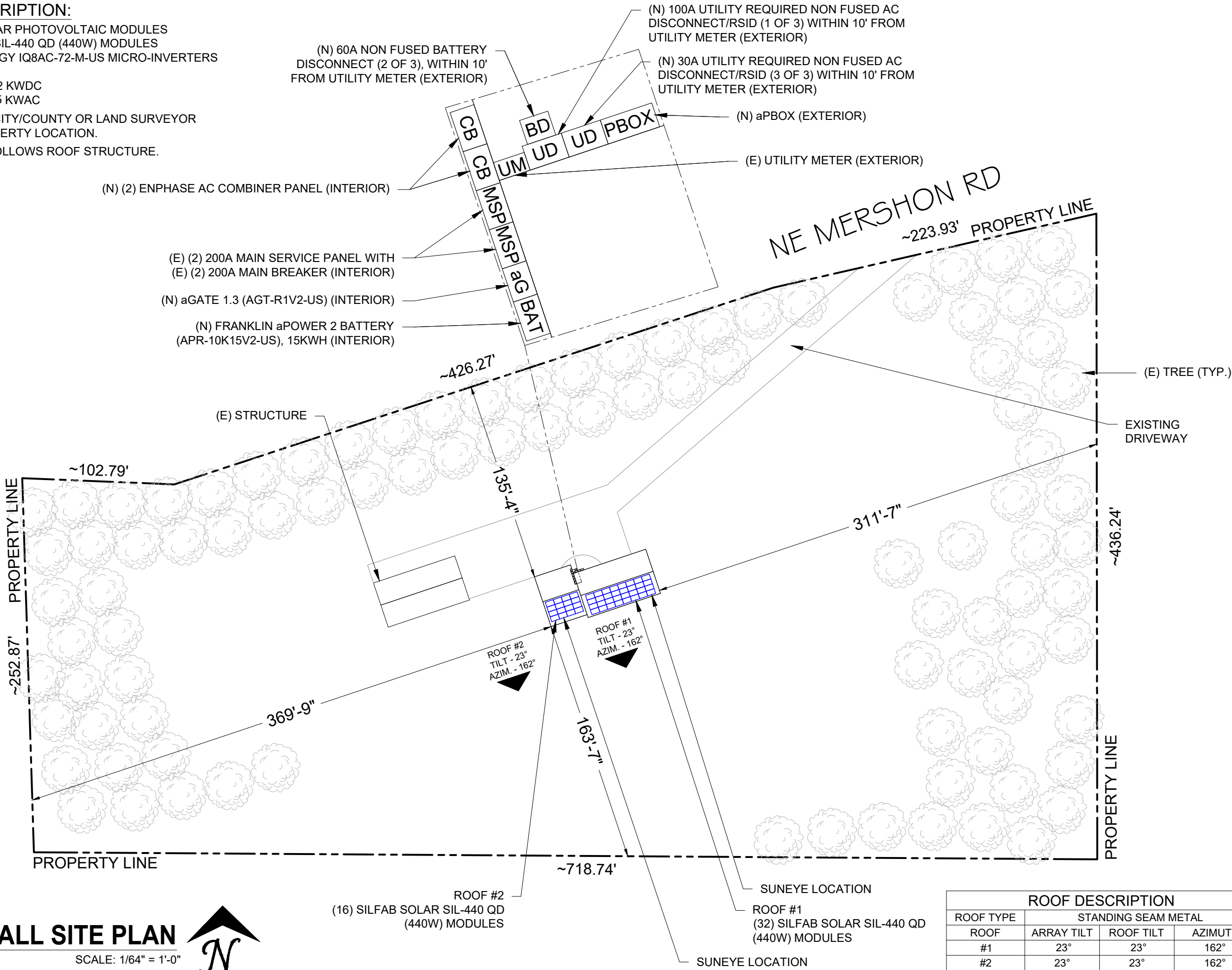
PROJECT DESCRIPTION:

- ROOF MOUNTED SOLAR PHOTOVOLTAIC MODULES
48 SILFAB SOLAR SIL-440 QD (440W) MODULES
48 ENPHASE ENERGY IQ8AC-72-M-US MICRO-INVERTERS

SYSTEM SIZE: 21.12 KWDC
16.75 KWAC

NOTE: *CHECK WITH CITY/COUNTY OR LAND SURVEYOR
FOR ACCURATE PROPERTY LOCATION.

NOTE: *ARRAY TILT FOLLOWS ROOF STRUCTURE.



ROOF DESCRIPTION			
STANDING SEAM METAL			
ROOF TYPE	ARRAY TILT	ROOF TILT	AZIMUTH
#1	23°	23°	162°
#2	23°	23°	162°

REVISIONS	
DESCRIPTION	DATE

ELECTRICAL CONTRACTOR

PROJECT NAME

AARON MCKAY RESIDENCE
32040 NE MERSHON RD,
TROUTDALE, OR 97060 USA
APN# R111656
UTILITY #: PGE

PROJECT
N/A

SHEET NAME
OVERALL SITE PLAN

SHEET SIZE
ANSI B

SHEET NUMBER
PV-1



6800 NE 59TH PLACE,
PORTLAND, OR 97218
Phone - (541) 316-5786
Contractor# OR CCB#: 195141

REVISIONS	
DESCRIPTION	DATE

ELECTRICAL CONTRACTOR

PROJECT NAME

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UTILITY #: PGE

PROJECT

N/A

SHEET NAME

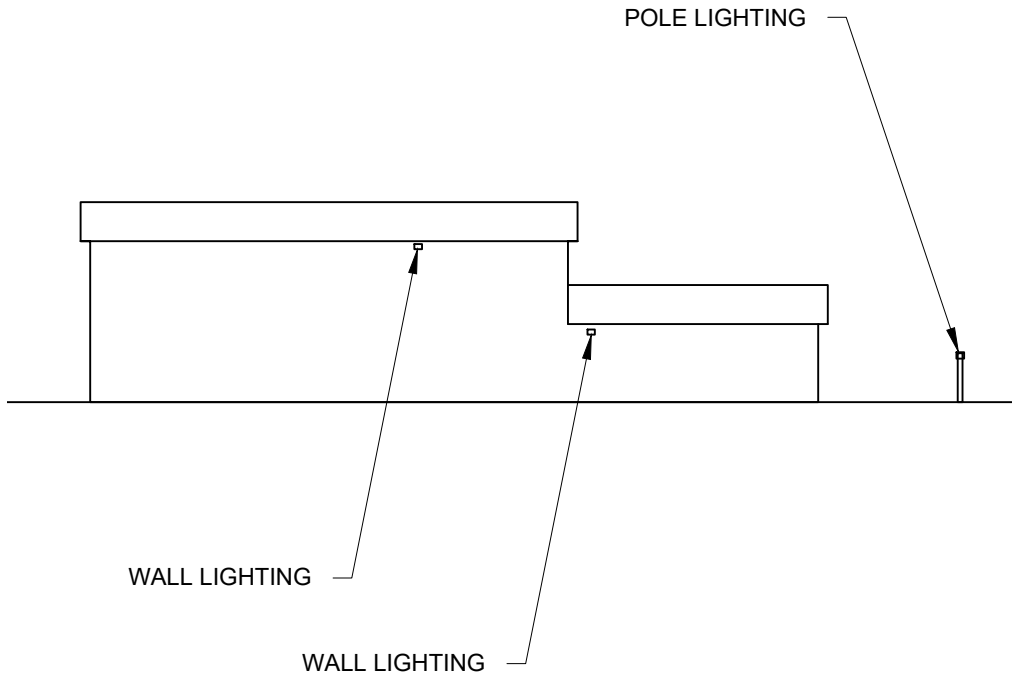
LIGHTING
ELEVATIONS

SHEET SIZE

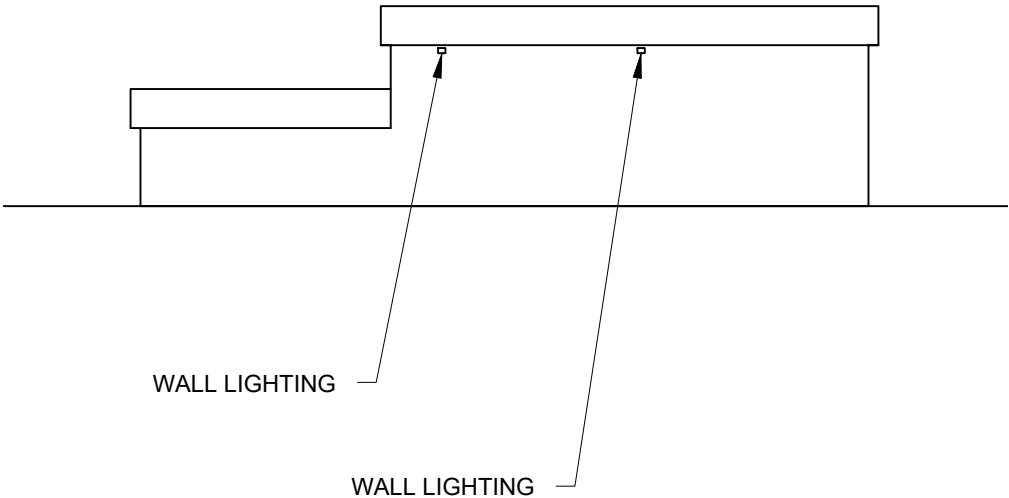
ANSI B

SHEET NUMBER

PV-1.1



1 FRONT ELEVATION
SCALE: NTS



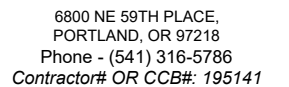
2 BACK ELEVATION
SCALE: NTS

NUMBER OF MODULES = 48 MODULES
MODULE TYPE = SILFAB SOLAR SIL-440 QD (440W) MODULES
MODULE WEIGHT = 46.3 LBS / 21.0 KG.
MODULE DIMENSIONS = 67.8"X 44.6" = 21.00 SF
UNIT WEIGHT OF ARRAY = 2.20 PSF

1. CONDUIT IS DIAGRAMMATIC. FINAL ROUTING TO BE DETERMINED BY INSTALLER.

ROOF DESCRIPTION			
ROOF TYPE			STANDING SEAM METAL
ROOF	ROOF TILT	AZIMUTH	PRE-ENGINEERED TRUSSES SPACING
#1	23°	162°	24" O.C.
#2	23°	162°	24" O.C.

BILL OF MATERIALS		
EQUIPMENT	QTY	DESCRIPTION
SOLAR PV MODULE	48	SILFAB SOLAR SIL-440 QD (440W) MODULES
INVERTER	48	ENPHASE ENERGY IQ8AC-72-M-US MICRO-INVERTERS
COMBINER PANEL	2	ENPHASE AC COMBINER PANEL
PV BREAKER	2	70A AND 30A 2 POLE PV BREAKER
Q DROPS	48	PORTRAIT Q CABLE DROPS
TERMINATOR	06	ENPHASE Q CABLE TERMINATOR CAPS
BATTERY	1	FRANKLIN aPOWER 2 BATTERY (APR-10K15V2-US), 15KWH
aGATE	1	aGATE 1.3 (AGT-R1V2-US)
DISCONNECT	2	100A AND 30A UTILITY REQUIRED NON FUSED PV AC DISCONNECT/RSID
DISCONNECT	1	60A NON FUSED BATTERY AC DISCONNECT
BREAKER	1	60A/2P BATTERY BREAKER
JAYBOX	2	WETBOX
MICROBOLTS	48	IRONRIDGE MICROBOLTS (BHW-MI-01-A1)
AIR DOCK	157	IRONRIDGE AIRE DOCK (AE-DOCK-01-B1)
RAIL	40	IRONRIDGE AIRE A1 RACKING-170" SECTION
RAIL SPLICE	32	SPLICE KIT (AE-A1-TIE-01-M1)
MID CLAMP	85	MID CLAMPS (AE-MID-01-B1)
END CLAMP	39	END CLAMPS (AE-END-01-B1)
ATTACHMENT	157	S-5! S-5-N CLAMPS ATTACHMENT
GROUNDING LUG	8	IRONRIDGE GROUNDING LUG (XR-LUG-03-A1)
aPBOX	1	FRANKLINWH aPBOX



REVISIONS

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PROJECT

N/A

SHEET NAME

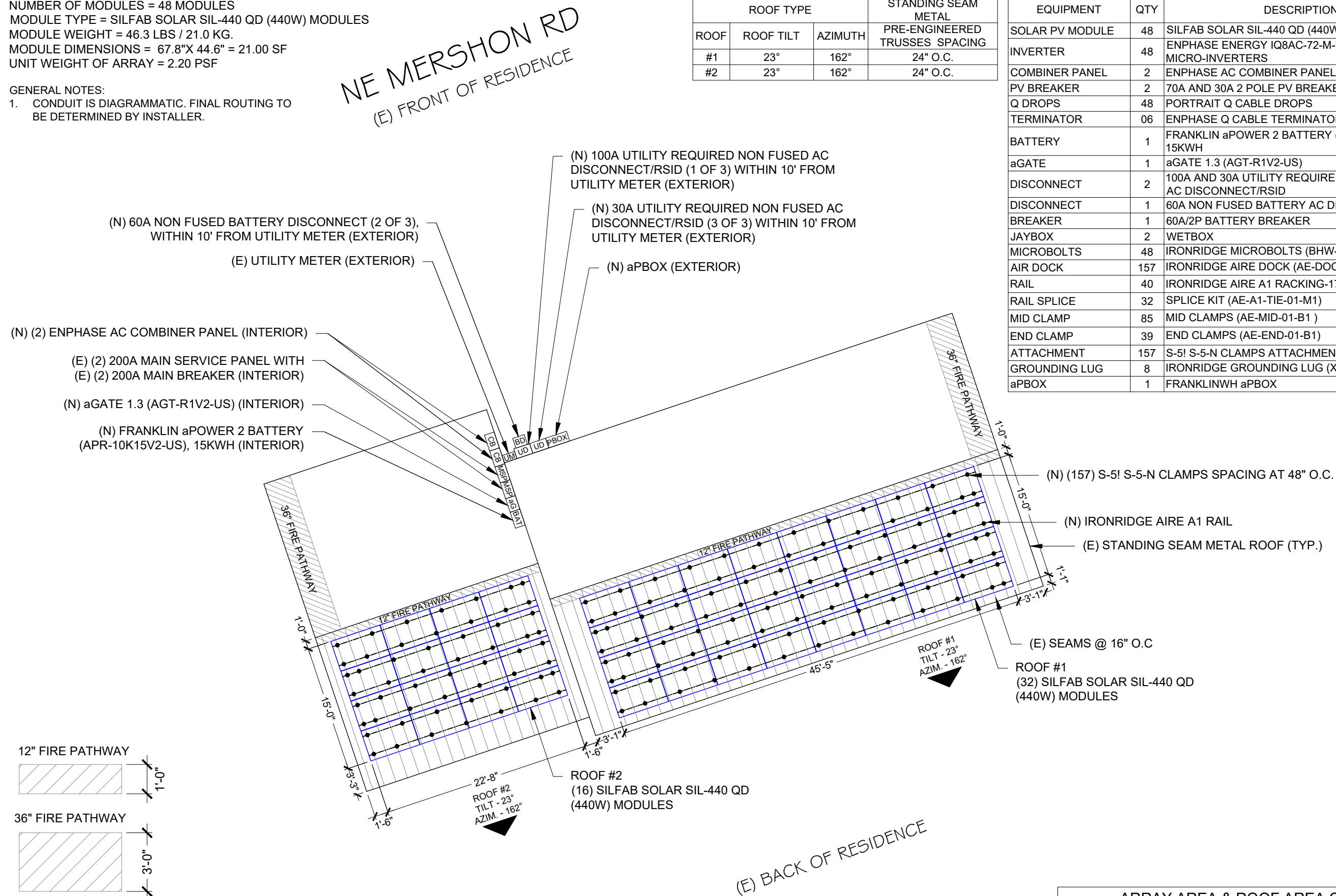
ROOF PLAN WITH MODULES

SHEET SIZE

ANSI B

SHEET NUMBER

PV-2



ARRAY AREA & ROOF AREA CALC'S					
ARRAY	# OF MODULES	ARRAY AREA (SQFT)	ROOF AREA (SQFT)	ROOF AREA COVERED BY ARRAY (%)	
#1	32	671.97	2500	26.88	>25%
#2	16	337.93	2500	13.52	<25%

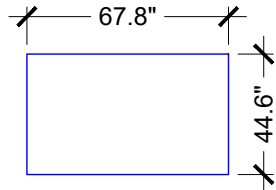
1

ROOF PLAN WITH MODULES

SCALE: 3/32" = 1'-0"



INVERTER SPECIFICATIONS			
MANUFACTURER /MODEL #	QUANTITY	NOMINAL OUTPUT VOLTAGE	NOMINAL OUTPUT CURRENT
ENPHASE ENERGY IQ8AC-72-M-US	48	240 VAC	1.45



PHOTOVOLTAIC MODULES
SILFAB SOLAR SIL-440 QD
(440W) MODULES

- (48) SILFAB SOLAR SIL-440 QD MODULES
- (48) ENPHASE ENERGY IQ8AC-72-M-US MICRO-INVERTERS
- (02) BRANCHES OF 09 MODULES,
- (02) BRANCHES OF 08 MODULES &
- (02) BRANCHES OF 07 MODULES CONNECTED IN PARALLEL PER BRANCH

 **ELEMENTAL
ENERGY**

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REVISIONS	
DESCRIPTION	DATE

ELECTRICAL CONTRACTOR

PROJECT NAME

AARON MCKAY RESIDENCE

32040 NE MERSHON RD,
TROUTDALE, OR 97060 USA

APN# R111656

UTILITY #: PGE

PROJECT

N/A

SHEET NAME

BRANCH LAYOUT

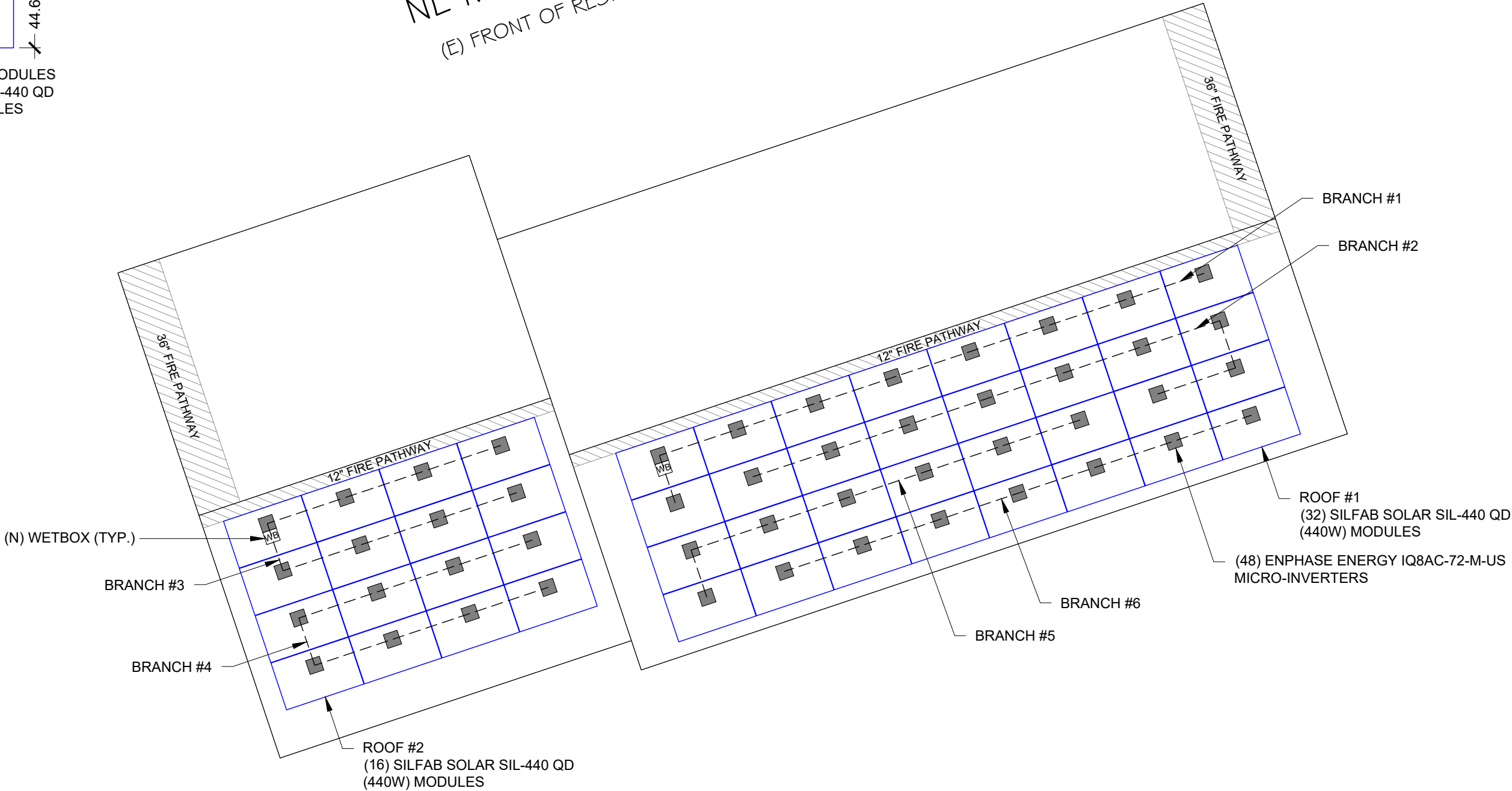
SHEET SIZE

ANSI B

SHEET NUMBER

PV-3

NE MERSHON RD
(E) FRONT OF RESIDENCE



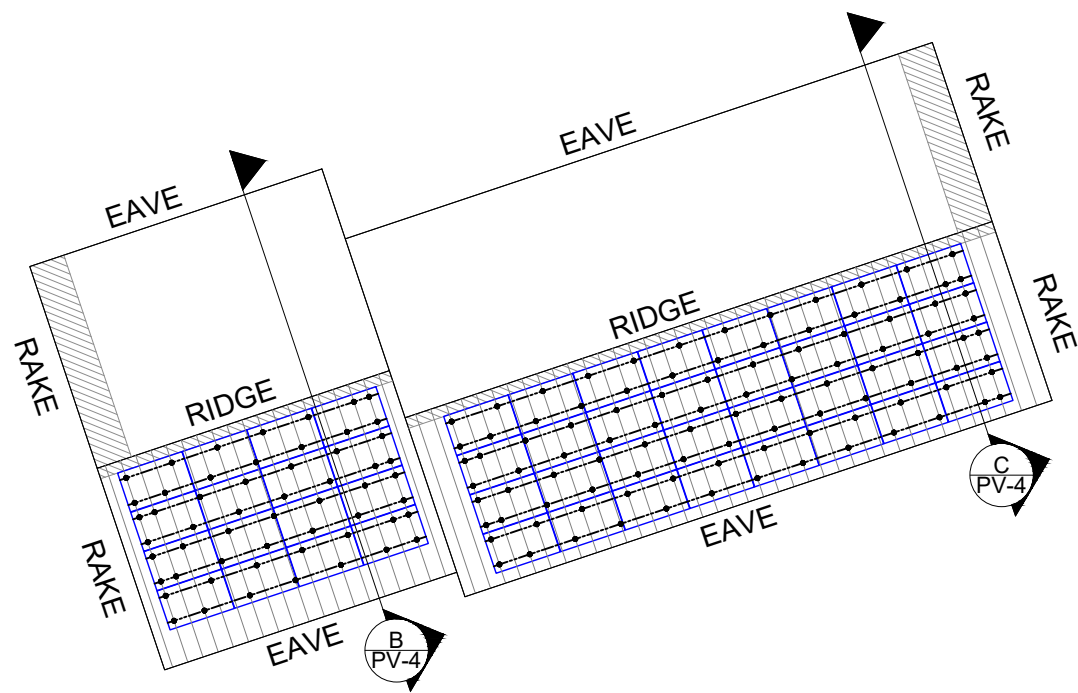
(E) BACK OF RESIDENCE



A
PV-4

FRAMING PLAN

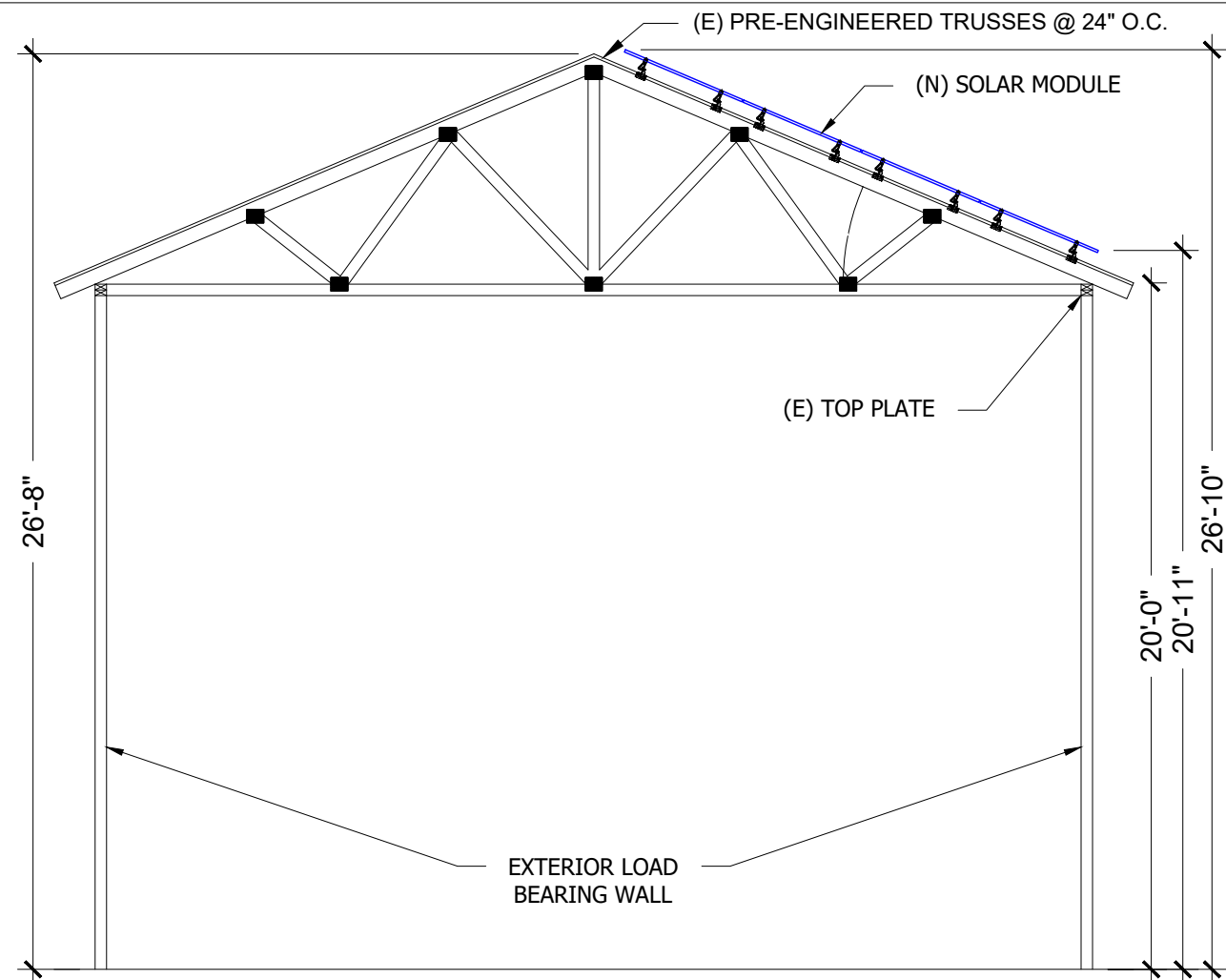
SCALE: 1/16" = 1'



C
PV-4

SECTION DETAIL

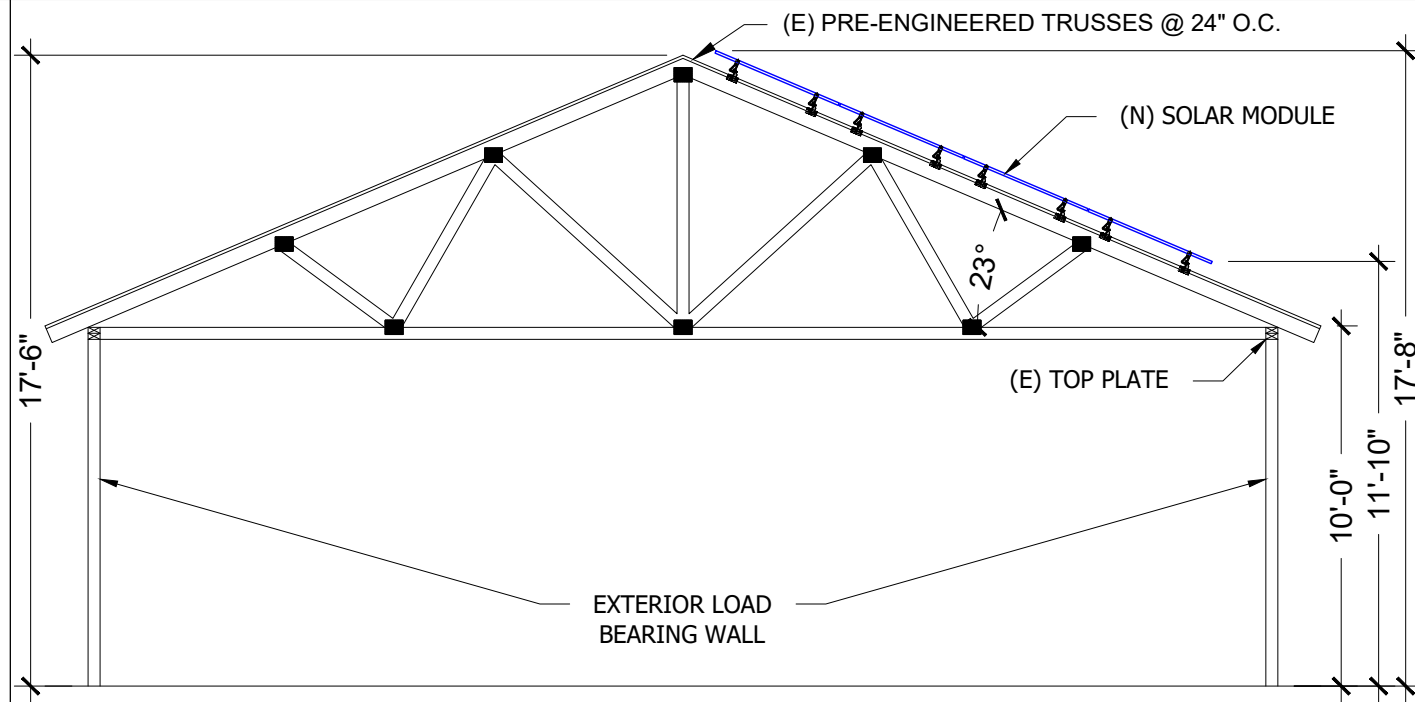
SCALE: 3/16" = 1'-0"



B
PV-4

SECTION DETAIL

SCALE: 3/16" = 1'-0"



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PROJECT NAME

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32040 NE MERSHON RD,
TROUTDALE, OR 97060 USA
APN# R111656
UTILITY #: PGE

PROJECT

N/A

SHEET NAME

FRAMING PLAN
DETAIL

SHEET SIZE

ANSI B

SHEET NUMBER

PV-4

REVISIONS

DESCRIPTION	DATE

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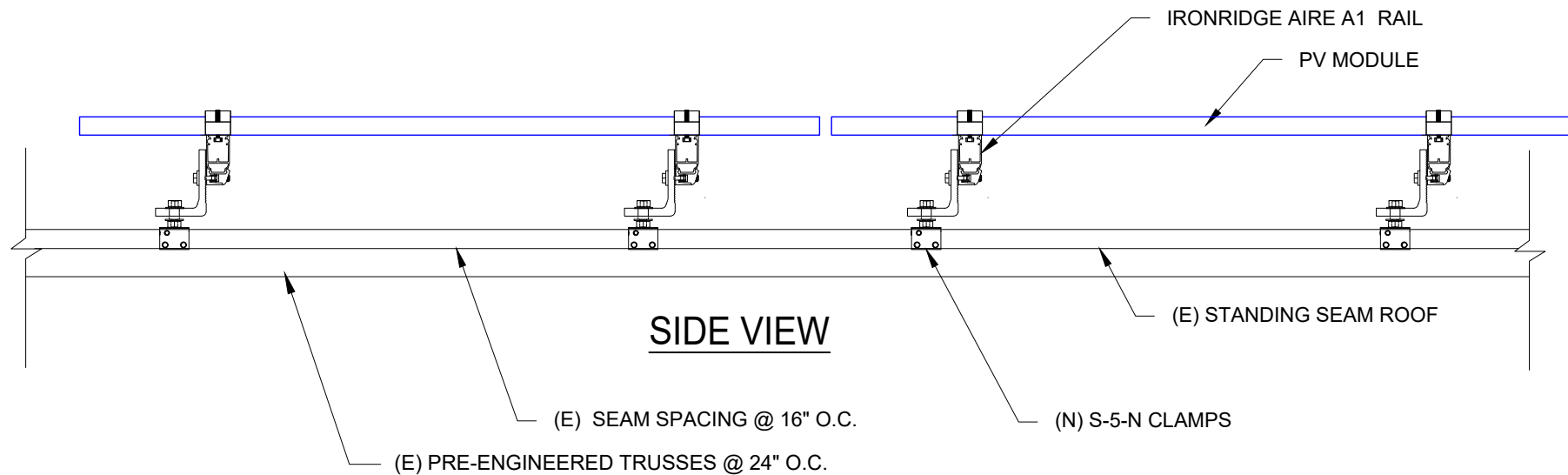
PROJECT

N/A

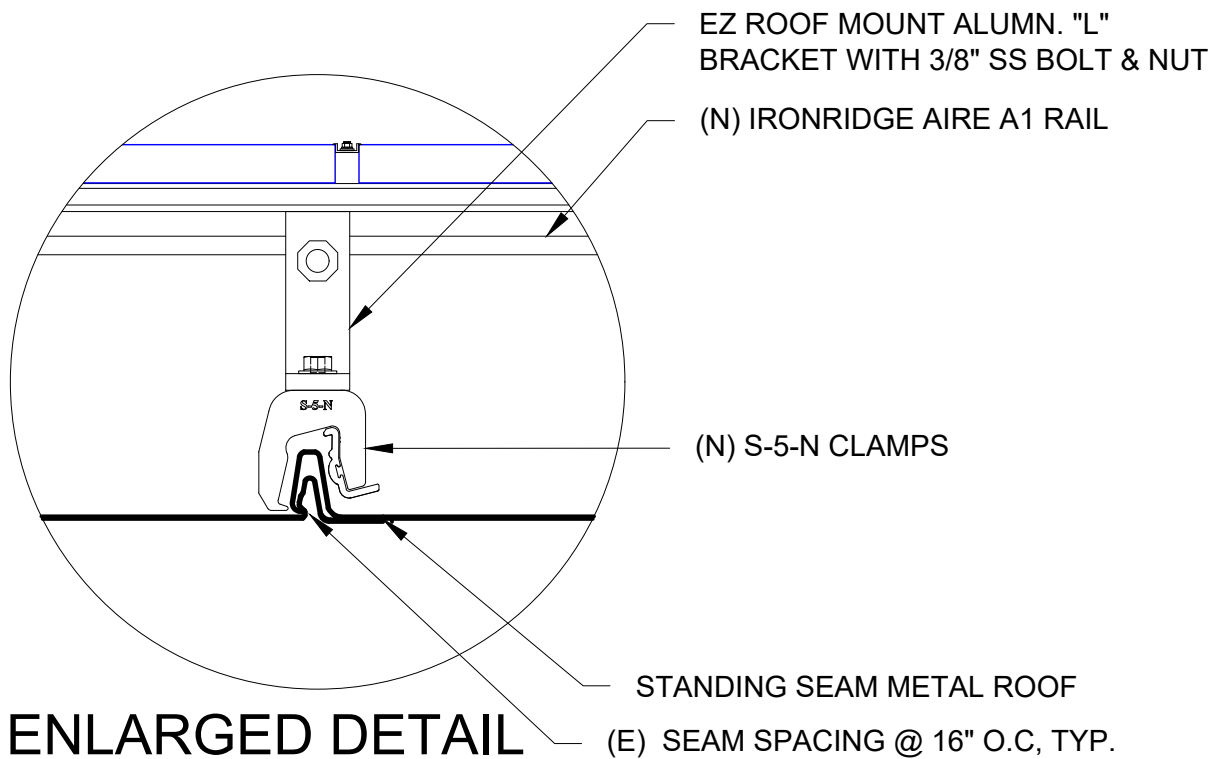
SHEET NAME
ATTACHMENT
DETAIL & CLAMPING
METHOD

SHEET SIZE
ANSI B

SHEET NUMBER
PV-4.1



1 ATTACHMENT DETAIL
SCALE: NTS.



ENLARGED DETAIL

2 ENLARGED VIEW
SCALE: NTS

Allowed positions for fixing the **SIL QD** module using mounting clamps.

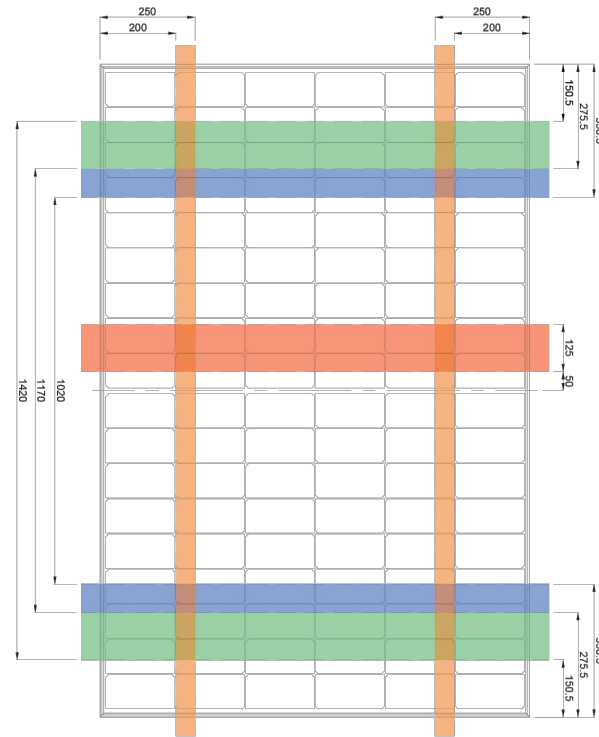
Mounting must stay **WITHIN** the coloured areas.

- = Long Edge Primary Mounting Zone
- = Long Edge Secondary Mounting Zone
- = Long Edge Third Mounting Zone
- = Short Edge Mounting Zone



ATTENTION:

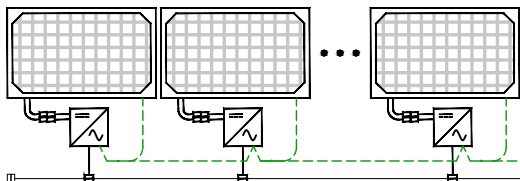
In the case of installation with modules in the portrait configuration, install the modules with the junction boxes at the top in their "upright" position. This will reduce the risk of moisture ingress into the junction box.



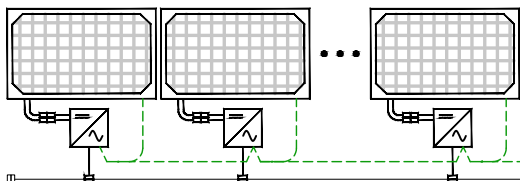
SIL QD				
MOUNTING TYPE	MOUNTING POSITION	MOUNTING ZONE	DESIGN LOAD RATING*	TEST LOAD RATING
Clamp	Long Edge Primary	275.5mm-350.5mm	+3600Pa/ -2667Pa	+5400Pa/ -4000Pa
Clamp	Long Edge Secondary	150.5mm-275.5mm	+2667Pa /-2400Pa	+4000Pa /-3600Pa
Clamp	Long Edge Three Rails	150.5mm-350.5mm and red zone	+3600Pa/ -3600Pa	+5400Pa/ -5400Pa
Clamp	Short Edge	200mm-250mm	+1600Pa/ -1600Pa	+2400Pa/ -2400Pa

3 CLAMPING METHOD
SCALE: NTS.

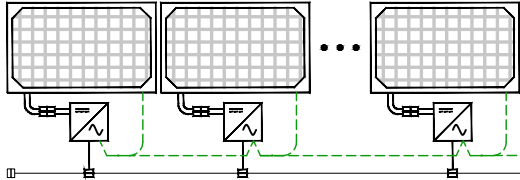
09 MICRO-INVERTERS IN BRANCH #1



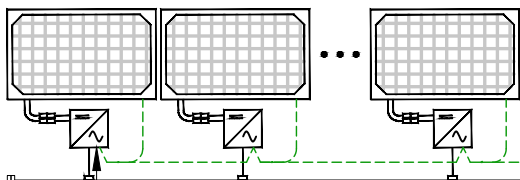
09 MICRO-INVERTERS IN BRANCH #2



08 MICRO-INVERTERS IN BRANCH #3

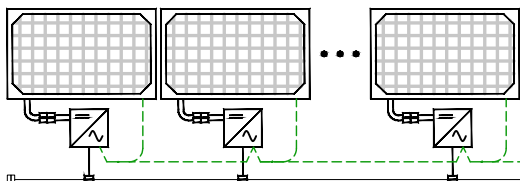


08 MICRO-INVERTERS IN BRANCH #4

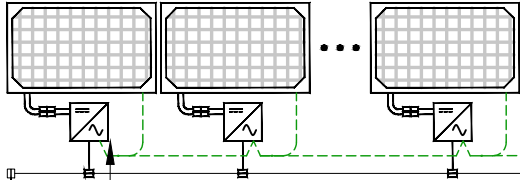


(34) ENPHASE ENERGY IQ8AC-72-M-US MICROINVERTERS (240V) (LOCATED UNDER EACH PANEL)
TERMINATOR CAP ON LAST CABLE CONNECTOR Q- CABLE (TYP)

07 MICRO-INVERTERS IN BRANCH #5



07 MICRO-INVERTERS IN BRANCH #6



(14) ENPHASE ENERGY IQ8AC-72-M-US MICROINVERTERS (240V) (LOCATED UNDER EACH PANEL)
TERMINATOR CAP ON LAST CABLE CONNECTOR Q- CABLE (TYP)

AC1
(1) Q-CABLE
(2) 12 AWG TRUNK CABLE
(1) 6AWG BARE CU GND

(N) WETBOX

AC2
(8) #10 AWG THWN
(1) #10 AWG THWN GND
IN 3/4" EMT CONDUIT RUN

(N) WETBOX

(N) ENPHASE AC COMBINER PANEL (INTERIOR) (1 OF 2)

(N) ENPHASE AC COMBINER PANEL (INTERIOR) (2 OF 2)

(N) FRANKLIN aPOWER 2 BATTERY (APR-10K15V2-US), 15KWH (INTERIOR)

AC3
(2) 4 AWG THWN
(1) 4 AWG THWN NEUTRAL
(1) 8 AWG THWN GND
IN 1" EMT CONDUIT

(N) 100A UTILITY REQUIRED NON FUSED PV AC DISCONNECT/RSID,(1 OF 3) LOAD-BREAK, KNIFE-BLADE, WITHIN 10' FROM UTILITY METER ACCESSIBLE 24/7(EXTERIOR)

(N) 70A/2P PV BREAKER
(N) 60A/2P BATTERY BREAKER

(N) 60A NON FUSED BATTERY AC DISCONNECT (2 OF 3), WITHIN 10' FROM UTILITY METER (EXTERIOR)

AC4
(2) 6 AWG THWN
(1) 6 AWG THWN NEUTRAL
(1) 10 AWG THWN GND
IN 3/4" EMT CONDUIT

(N) 30A UTILITY REQUIRED NON FUSED PV AC DISCONNECT/RSID,(3 OF 3) LOAD-BREAK, KNIFE-BLADE, WITHIN 10' FROM UTILITY METER ACCESSIBLE 24/7(EXTERIOR)

(N) aPBOX (EXTERIOR)

AC7
(2) 10 AWG THWN
(1) 10 AWG THWN NEUTRAL
(1) 10 AWG THWN GND
IN 3/4" EMT CONDUIT

AC5
(2) 3/0 AWG THWN
(1) 3/0 AWG THWN NEUTRAL
(1) 6 AWG THWN GND
IN 2" EMT CONDUIT

(N) aGATE X (AGT-R1V2-US) (INTERIOR)

(E) 400A METER ENCLOSURE (EXTERIOR)

BI-DIRECTIONAL UTILITY METER
METER 1-PHASE,
3-W, 120V/240V, 60Hz

EXISTING WIRES

240V EV OUTLET

(E) 200A MAIN SERVICE PANEL "B" WITH (E) 200A MAIN BREAKER (INTERIOR)

(N) GENERATOR MODULE ACCY-GENV2-US 240V

AC6
(2) 3/0 AWG THWN
(1) 3/0 AWG THWN NEUTRAL
(1) 6 AWG THWN GND
IN 2" EMT CONDUIT

(E) 200A MAIN BREAKER

(E) 200A MAIN SERVICE PANEL "A" WITH (E) 200A MAIN BREAKER (INTERIOR)

(N) 30A/2P PV BREAKER

GENERAL NOTES:

1. CONTRACTOR RESPONSIBLE FOR COMPLYING WITH ALL LOCAL OR NATIONAL CODE REQUIREMENTS AND EQUIPMENT INSTALLATION INSTRUCTIONS.
2. SEE PV-6 FOR LABELING REQUIREMENTS
3. 200A CONTACTOR ISOLTES BACKUP POWER SYSTEM FROM GRID UPON LOSS OF GRID VOLTAGE.



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REVISIONS

DESCRIPTION	DATE

ELECTRICAL CONTRACTOR

PROJECT NAME

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PROJECT

N/A

SHEET NAME

ELECTRICAL LINE
DIAGRAM

SHEET SIZE
ANSI B

SHEET NUMBER
PV-5

1

ELECTRICAL LINE DIAGRAM

SCALE: NTS



6800 NE 59TH PLACE,
PORTLAND, OR 97218
Phone - (541) 316-5786
Contractor# OR CCB#: 195141

REVISIONS

DESCRIPTION	DATE

ELECTRICAL CONTRACTOR

PROJECT NAME

AARON MCKAY RESIDENCE
32040 NE MERSHON RD,
TROUTDALE, OR 97060 USA
APN# R111656
UTILITY #: PGE

PROJECT

N/A

SHEET NAME

ELECTRICAL
CALCULATION

SHEET SIZE

ANSI B

SHEET NUMBER

PV-5.1

CONDUCTOR SCHEDULE AND CALCULATIONS

TAG	LOCATION DESCRIPTION	EQUIPMENT	# OF BRANCH	CURRENT (A)			STC	# PARALLEL	#C. CARRYING	WIRE	WIRE	COND.	COND.	AMBIENT	MULTI	DERATED	1-WAY	VD	OCPD	NEUTRAL	GROUND	CONDUIT	CONDUIT
WIRE RUN	FROM	HOME RUN ID	BRANCH	MAX. MOD. IN BRANCH LENGTH	INVERTER OUTPUT CURRENT	690.8(A)(1)	VOLTAGE (V)	RUNS	CONDUCTORS	SIZE	TYPE	MATERIAL	RATING (A)	TEMP	# COND.	(A)	L (FT.)	%	RATING	SIZE	SIZE	TYPE	SIZE
AC1	BRANCH TO WETBOX	BRANCH	4	09	1.45	16.31	240	1	2	12 AWG	Q-CABLE	CU	25	0.94	1	23.50	40	0.70%	N/A	N/A	6 AWG	FREE AIR	N/A
AC2	WETBOX TO COMBINER BOX	WETBOX	4	09	1.45	16.31	240	4	8	10 AWG	THWN	CU	35	0.94	0.7	23.03	75	0.86%	20	N/A	10 AWG	EMT	3/4"
AC2.1	WETBOX TO COMBINER BOX	WETBOX	2	7	1.45	12.69	240	2	4	10 AWG	THWN	CU	35	0.94	0.8	26.32	75	0.67%	20	N/A	10 AWG	EMT	3/4"
AC3	COMBINER BOX TO aGATE X	COMBINER BOX	N/A	34	1.45	61.63	240	1	2	4 AWG	THWN	CU	85	1.00	1	85.00	10	0.12%	70	4 AWG	8 AWG	EMT	1"
AC4	BATTERY TO aGATE	BATTERY	N/A	-	-	60.00	240	1	2	6 AWG	THWN	CU	65	1.00	1	65.00	10	0.18%	60	6 AWG	10 AWG	EMT	3/4"
AC5	aGATE TO POINT OF INTERCONNECTION	aGATE X	N/A	-	-	200.00	240	1	2	3/0 AWG	THWN	CU	200	1.00	1	200.00	10	0.15%	200	3/0 AWG	6 AWG	EMT	2"
AC6	aGATE X TO MAIN SERVICE PANEL	aGATE X	N/A	-	-	200.00	240	1	2	3/0 AWG	THWN	CU	200	1.00	1	200.00	5	0.07%	200	3/0 AWG	6 AWG	EMT	2"
AC7	COMBINER TO MAIN SERVICE PANEL	COMBINER BOX	N/A	14	1.45	25.38	240	1	2	10 AWG	THWN	CU	35	1.00	1	35.00	10	0.18%	30	10 AWG	10 AWG	EMT	3/4"

MAX VOLTAGE DROP: 1.83%



ELECTRICAL CALCULATION

SCALE: NTS

PHOTOVOLTAIC SYSTEM
AC DISCONNECT

OPERATING VOLTAGE240VOLTS
OPERATING CURRENT49.30AMPS

LOCATION: AC DISCONNECT (1 OF 3) AND COMBINER PANEL (1 OF 2) QUANTITY:2

PHOTOVOLTAIC SYSTEM
AC DISCONNECT

OPERATING VOLTAGE240VOLTS
OPERATING CURRENT20.30AMPS

LOCATION: AC DISCONNECT (3 OF 3) AND COMBINER PANEL (2 OF 2) QUANTITY:2

AUTOMATIC
TRANSFER SWITCH

LOCATION: aGATE QUANTITY:1

WARNING: MULTIPLE POWER SOURCES PRESENT.
21120 WATT PHOTOVOLTAIC ARRAY LOCATED ON ROOF.
MAIN SERVICE DISCONNECT LOCATED INSIDE AT HOUSE MAIN
SERVICE PANEL. AC DISCONNECT AND RAPID SHUTDOWN
INITIATION DEVICE LOCATED OUTSIDE NEXT TO THE METER.

LOCATION: METER QUANTITY:1

BATTERY DISCONNECT LOCATED
INSIDE NEXT TO BATTERY

LOCATION: BATTERY QUANTITY:1

RAPID SHUTDOWN SWITCH
FOR SOLAR PV SYSTEM

LOCATION: RSD INITIATION DEVICE QUANTITY:2

MULTIPLE POWER SOURCES PRESENT. SECOND
SOURCE IS A PV ARRAY. THIRD SOURCE IS AN
ENERGY STORAGE SYSTEM. MAIN SERVICE
DISCONNECT LOCATED IN THIS PANEL. AC
DISCONNECT AND RAPID SHUTDOWN INITIATION
DEVICE LOCATED OUTSIDE NEXT TO METER.

LOCATION: INTERCONNECTION PANEL QUANTITY:1

BRANCH #6
DISCONNECT
240VAC 10.15 AAC

LOCATION: COMBINER PANEL(2 OF 2) QUANTITY:1

BATTERY BACKUP
AC DISCONNECT
240VAC 48 AAC

LOCATION: BATTERY DISCONNECT QUANTITY:1

!WARNING

THREE POWER SOURCES

SOURCE: UTILITY GRID, BATTERY
AND PV SOLAR ELECTRIC SYSTEM

LOCATION: AC DISCONNECT QUANTITY:1

BRANCH #1
DISCONNECT
240VAC 13.05 AAC

LOCATION: COMBINER PANEL(1 OF 2) QUANTITY:1

BRANCH #2
DISCONNECT
240VAC 13.05 AAC

LOCATION: COMBINER PANEL(1 OF 2) QUANTITY:1

BRANCH #3
DISCONNECT
240VAC 11.60 AAC

LOCATION: COMBINER PANEL(1 OF 2) QUANTITY:1

BRANCH #4
DISCONNECT
240VAC 11.60 AAC

LOCATION: COMBINER PANEL(1 OF 2) QUANTITY:1

BRANCH #5
DISCONNECT
240VAC 10.15 AAC

LOCATION: COMBINER PANEL(2 OF 2) QUANTITY:1

CAUTION

THIS PANEL HAS SPLICED FEED
THROUGH CONDUCTORS
LOCATION OF DISCONNECT AT
BATTERY BACK UP LOAD PANEL

LOCATION: aGATE QUANTITY:1

!WARNING

PHOTOVOLTAIC SYSTEM
COMBINER PANEL

DO NOT ADD LOADS

LOCATION: COMBINER PANEL QUANTITY:2

REVISIONS	
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ELECTRICAL CONTRACTOR

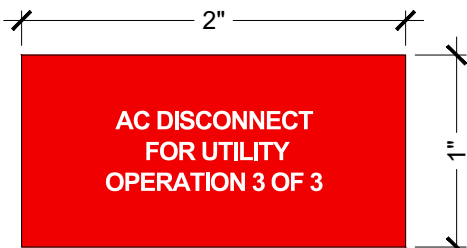
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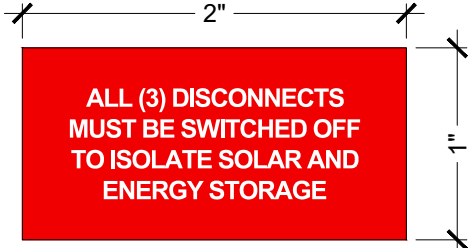
SHEET NAME
WARNING LABELS

SHEET SIZE
ANSI B

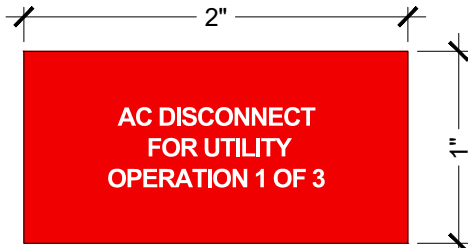
SHEET NUMBER
PV-6



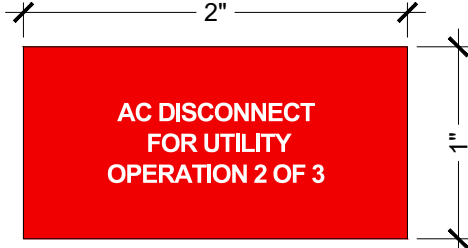
LOCATION: PV AC DISCONNECT (3 OF 3) QUANTITY:1



LOCATION: METER QUANTITY:1



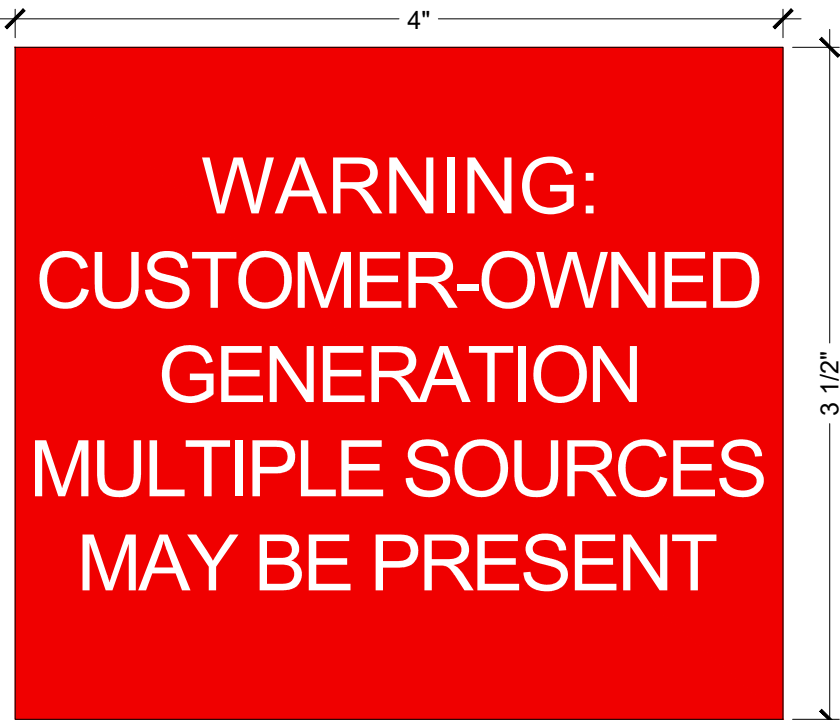
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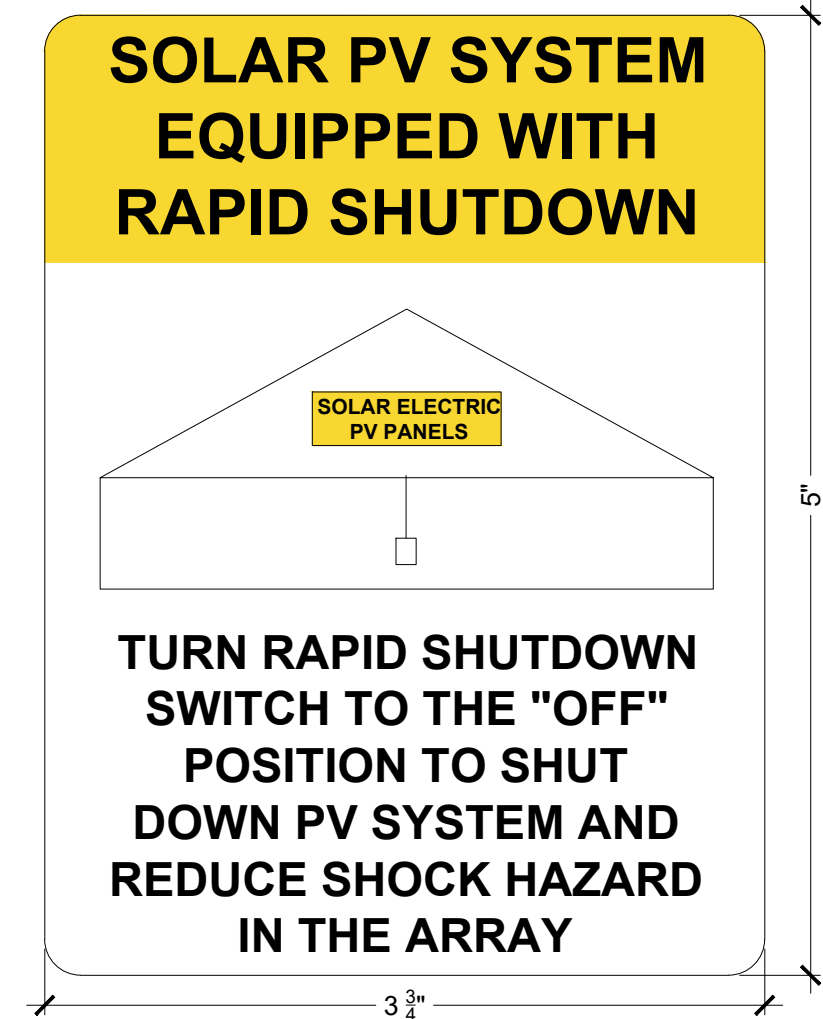
LOCATION: BATTERY DISCONNECT (2 OF 3) QUANTITY:1



LOCATION: AC DISCONNECT QUANTITY:1



LOCATION: METER BASE QUANTITY:1



LOCATION: MAIN SERVICE DISCONNECT QUANTITY:1

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ELECTRICAL CONTRACTOR

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